Collaborative R&D: Maintaining the Nuclear Fleet & Advanced Reactor Technology

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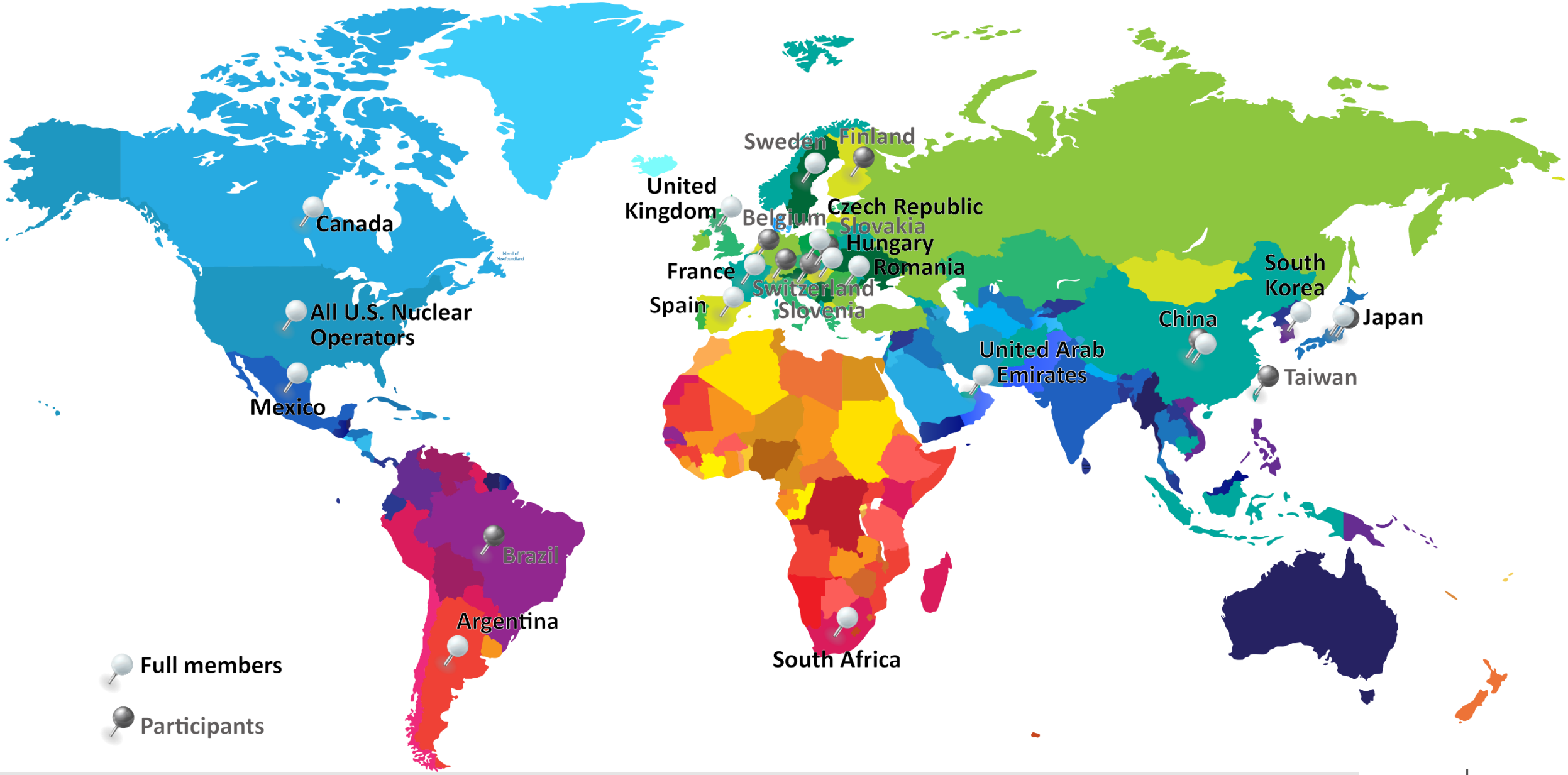
About EPRI

- Independent, nonprofit center for public interest energy and environmental research
- Collaborative resource for the electricity sector
- Offices in California, North Carolina, Tennessee; laboratories in North Carolina, Tennessee, Massachusetts
- 450+ participants in more than 30 countries

RESEARCH AREAS

The countries our Nuclear Sector serves



Core Drivers

Maximize

the safe utilization of existing nuclear assets

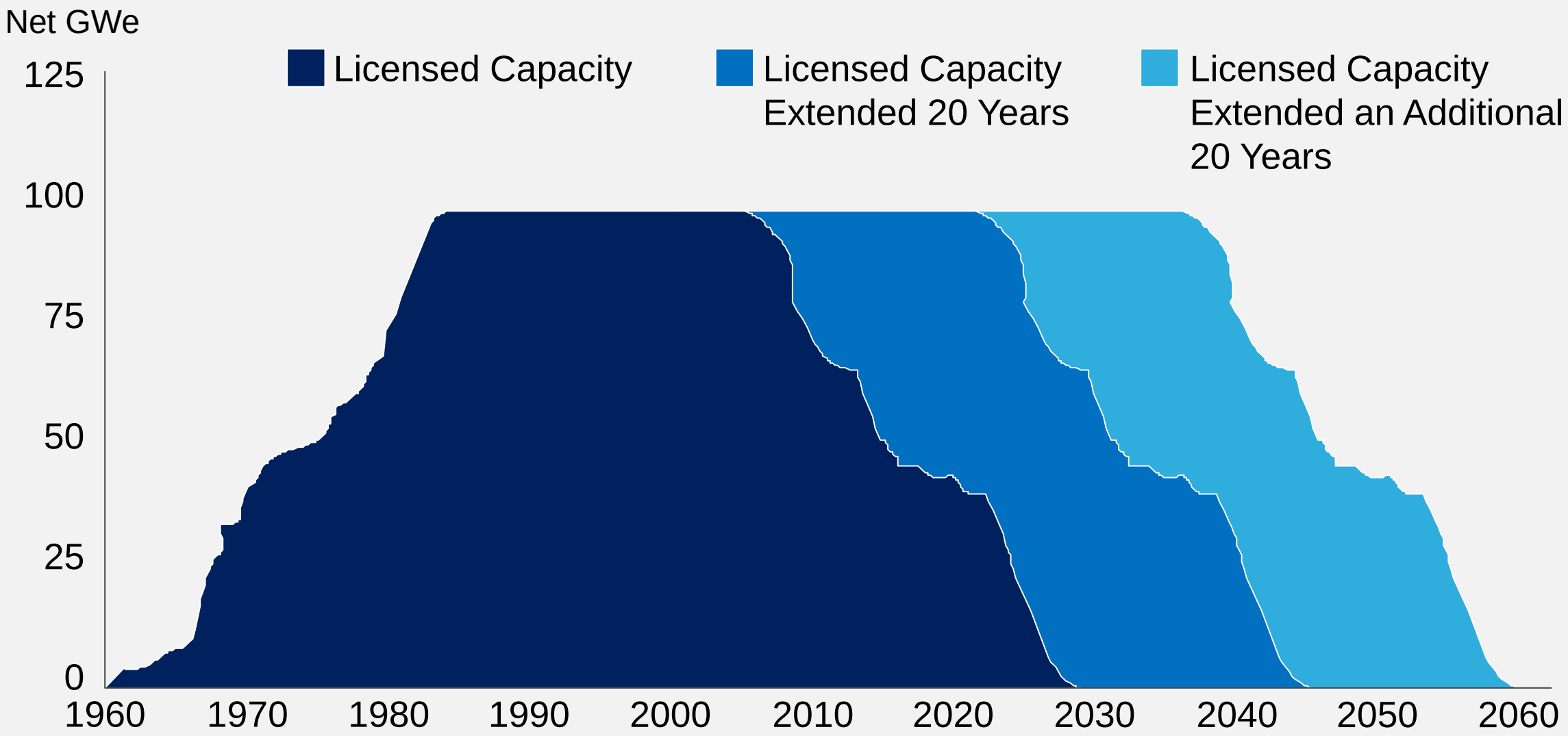
Enable

the deployment of advanced nuclear technologies

Assess

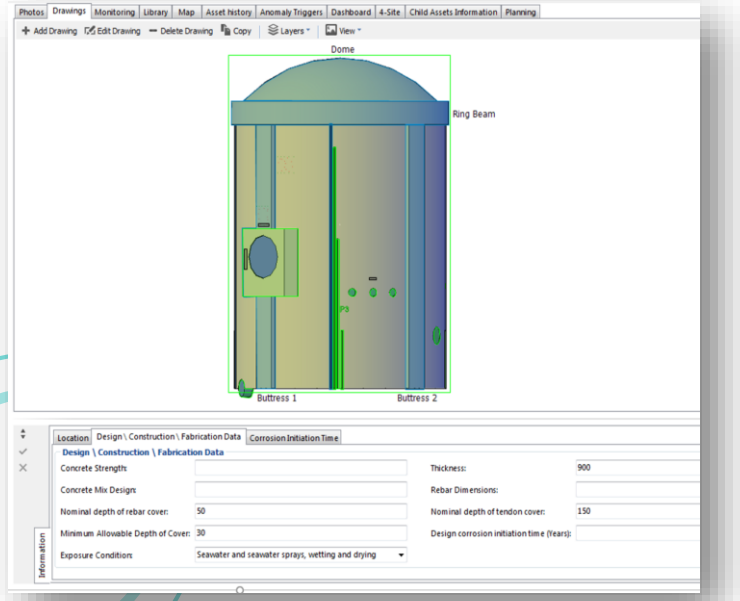
long-term sustainability of nuclear energy

U.S. Nuclear Generating Capacity

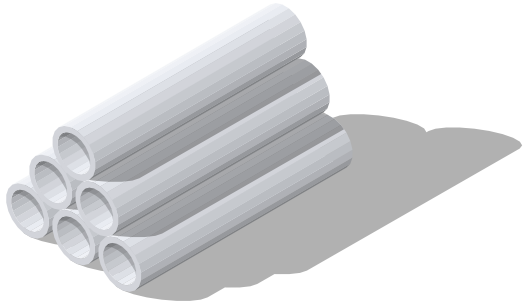


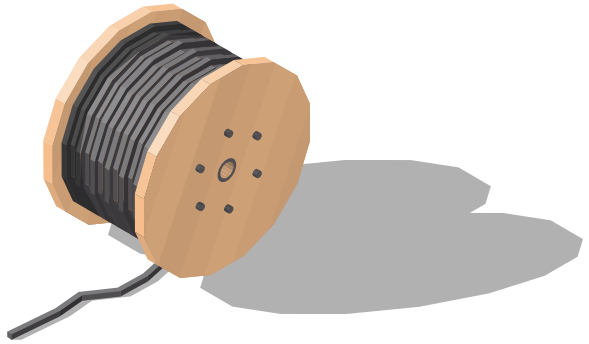
Source: NRC

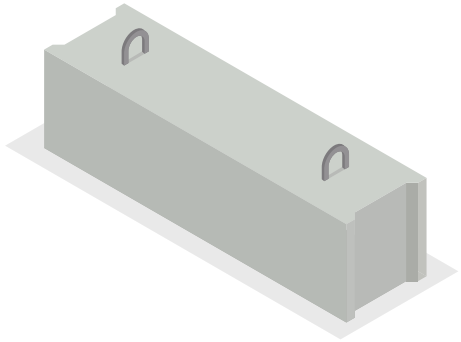
Keeping the current fleet operating

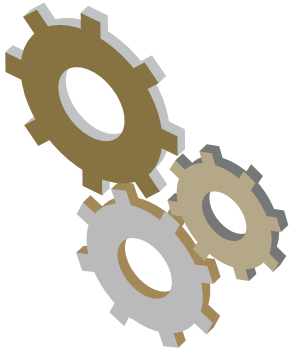


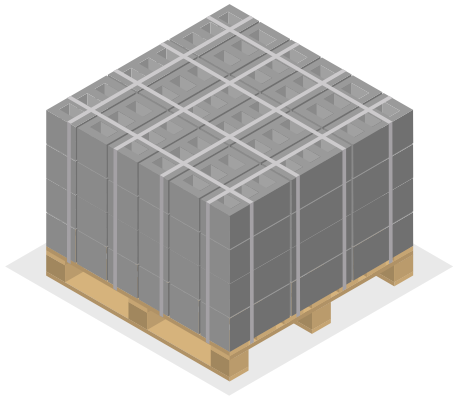
Enabling life beyond 60 years of operations

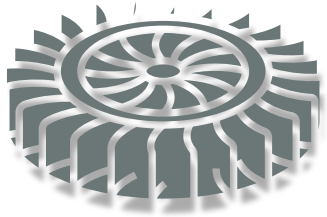








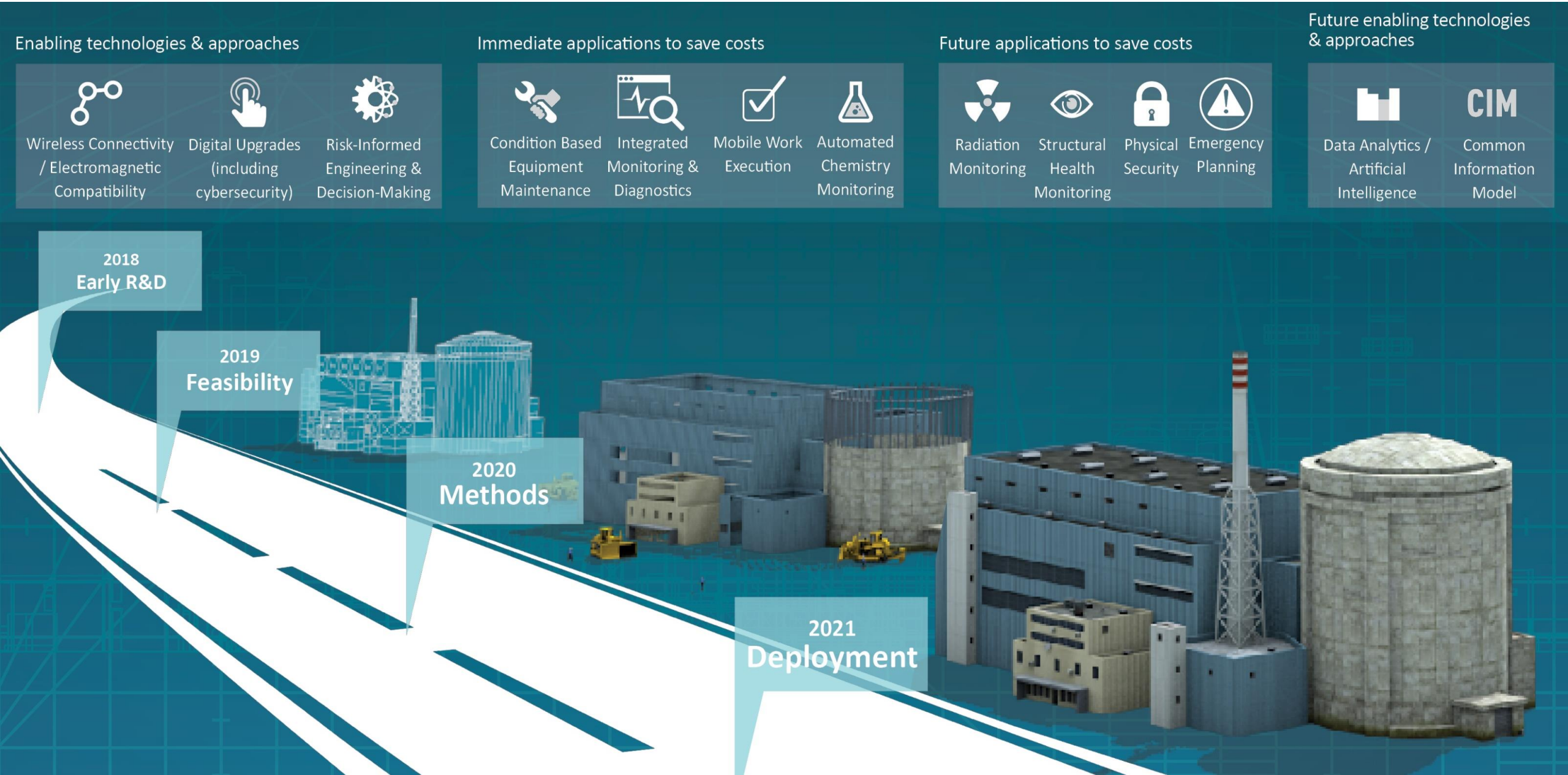




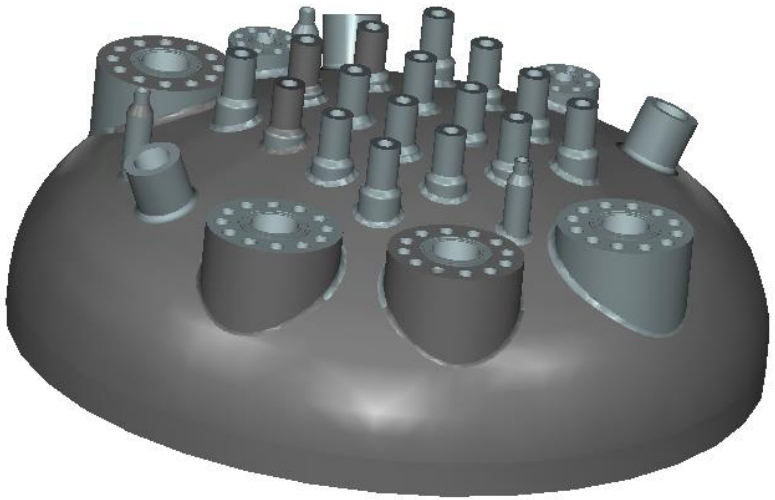
Value Based Maintenance

THE GOAL: **Establish the right equipment reliability for the right cost**

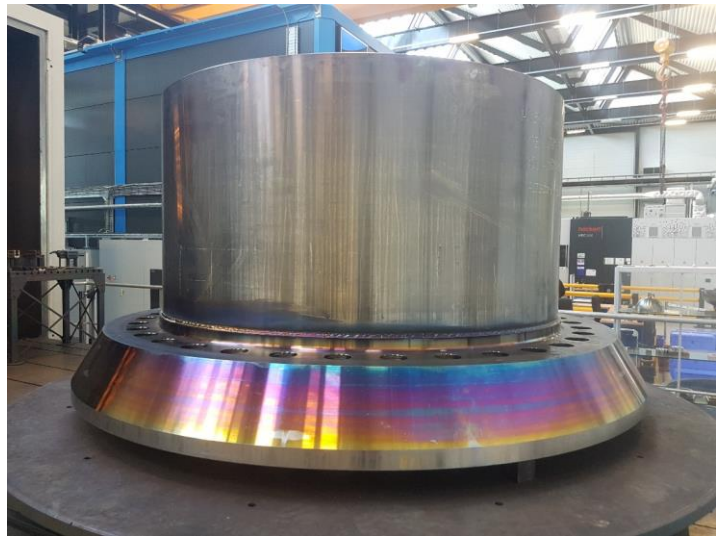
Plant Modernization



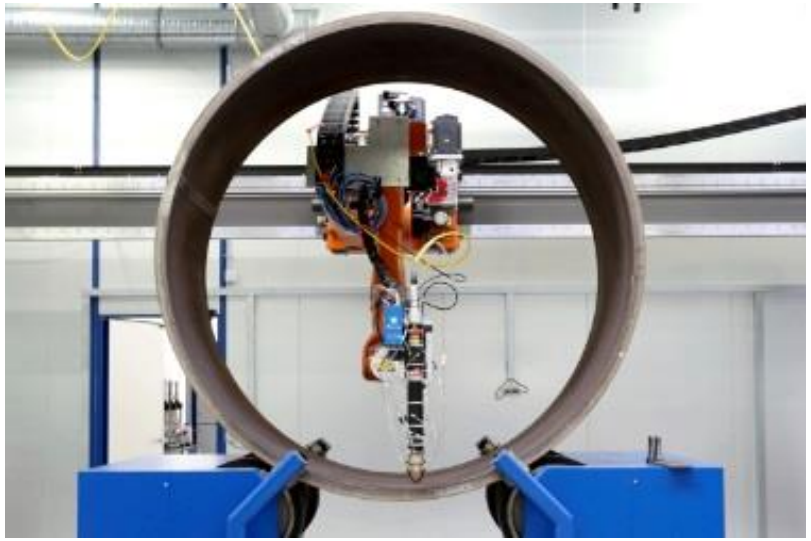
Advanced Manufacturing



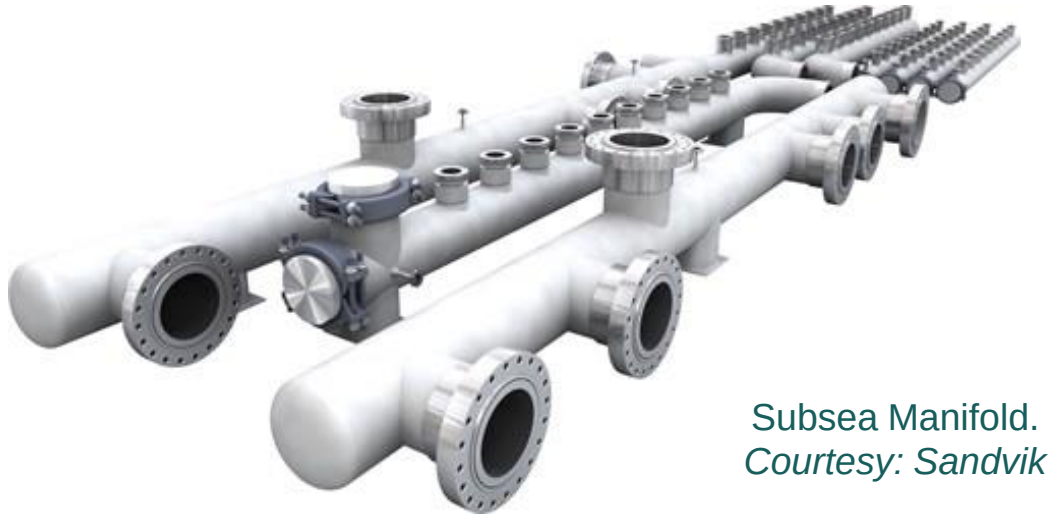
Photographs courtesy of EPRI and NuScale Power



Lower Flange Shell Mockup EB Weld -- ~6 ft (1.82m) diameter (mockup is upside down)
Completed in 47 minutes

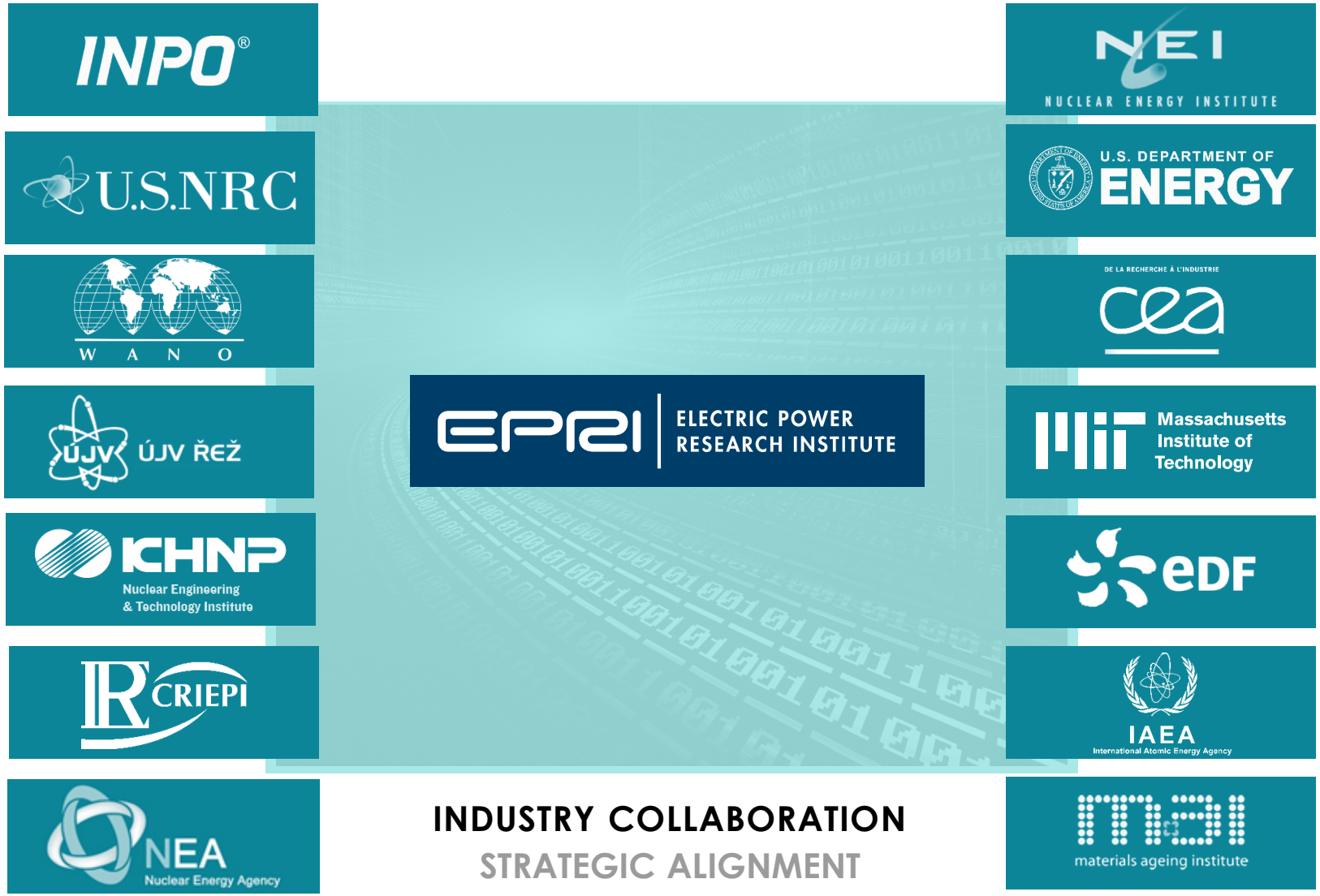


Diode Laser Cladding equipment setup (courtesy of N-ARMC)



Subsea Manifold.
Courtesy: Sandvik

Key Interfaces



INDUSTRY COLLABORATION

STRATEGIC ALIGNMENT

ACTIVE ENGAGEMENT

FREQUENT COMMUNICATIONS

Together...Shaping the Future of Electricity